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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SMETANA, JIRI F

ART UNIT

PAPER NUMBER

1746

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6

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-6

**Office Action Summary**

Application No.

09/641,155

Applicant(s)

BRUCE ET AL.

Examiner

Jiri F. Smetana

Art Unit

1746

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.                      6) ☐ Other:

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of Applicant's claim domestic priority under 35 U.S.C. 119(e) to provisional application 60/150,989, filed 27 August 1999.
2. Applicant is required to amend the specification to contain in the first sentence of the specification following the title a reference to the prior provisional application, identifying it as a provisional application, including the provisional application number (consisting of series code and serial number), and filing date of the provisional application. See 37 CFR 1.78.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1 and 7 are indefinite because it is not clear whether the feeding solution intends to include a Markush group or whether the feeding solution intends to include a mixture of all. It is suggested that Applicant amend the first element of these claims to either properly recite a Markush type group (see MPEP 2173.05(h)) or list the feeding solution in the alternative language. Dependent claims 2-6 and 8-10 are also rejected because these claims fail to cure the indefinite nature of the independent claims. For purposes of examination, Examiner is treating the recited group in claim 1 (lines 2-3) and claim 7 (lines 2-3) as a Markush group.

Claim 10 is indefinite because "the solution" refers to "an aqueous base, an organic solvent, and combinations thereof to the reactor." Applicant is not further limiting his invention by changing the limitation of "the solution" to acetone.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Rueter, U.S. Patent No. 5,782,989.

The claimed invention reads on Rueter as follows: Rueter discloses a process for cleaning a reactor comprising of feeding a solution selected from an aqueous base (column 3, line 64 - column 4, line 11), an organic solvent of isopropanol (column 4, lines 12-27) and acetone (column 3, lines 48-50); emptying the reactor (column 6, lines 24-27); wherein, the reactor is a heat exchanger (column 6, lines 17-21).

The elements in the claims are read in the reference.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petermann et al., U.S. Patent No. 3,985,572.

Petermann discloses a process of feeding a solution of water through multiple pressure sources to a reactor having an agitator with blades and pressure sources aimed at the agitator blades (column 5, lines 18-25; column 9, lines 27-48); emptying the reactor (Figure 1); wherein the multiple pressure sources are hoses equipped with nozzles (column 5, lines 18-25); wherein the water is fed to the reactor at a pressure from 2,000 psi (138 bar) to 6,000 psi (414 bar) (column 5, lines 18-25); and wherein the reactor is equipped with a heat exchanger in an external loop (Figures 8A-8F; column 4, lines 52-60).

Petermann does not disclose wherein the pressure sources are stationary nor wherein the agitator is rotated while the solution is fed to the reactor. However, Petermann discloses wherein the agitator is stationary and the pressure sources are rotated while the solution is fed to the reactor (column 1, lines 27-43; column 9, lines 27-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to clean a reactor wherein the pressure sources are stationary and wherein the agitator is rotated while the solution is fed to the reactor in place of wherein the agitator is stationary and the pressure sources are rotated while the solution is fed to the reactor because one would have arrived at the same expected results. Further, the reversal of parts was held to have been obvious. *In re Gazda*, 104 USPQ 400 (CCPA 1955). The rearrangement of parts was also held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1950).

9. Claims 1, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petermann as applied to claims 1, 2, and 4 above, in view of the teaching reference of Komabashiri et al., EP 0248681 B1.

Recitation of Petermann is recited here from above.

Petermann does not explicitly disclose wherein the hoses are made of 316 stainless steel or wherein the cleaning agent is aqueous base or caustic. However, Komabashiri discloses wherein material used in a polymerization reactor, agitator, and baffle-plates is 316 stainless steel (page 4, lines 25-27) and wherein the cleaning agent is aqueous base or caustic (page 2, lines 37) at a temperature of 100°C or less (page 2, lines 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to clean a reactor with 316 stainless steel because Komabashiri teaches that such material is conventional in polymerization reactors, agitators, and baffle materials (page 4, lines 25-27). Further, the use of conventional material to perform their known functions in a conventional process is obvious. *In re Raner*, 134 USPQ 343 (CCPA 1962).

It would have been also been obvious to one of ordinary skill in the art at the time the invention was made to clean with a feeding solution of aqueous base or caustic at 100°C because Komabashiri teaches remarkable cleaning of a polymerization reactor (page 2, lines 28-31; page 4, lines 42-48).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petermann as applied to claims 1, 2, and 4 above, in view of Rodriguez et al., U.S. Patent No. 5,145,597.

Recitation of Petermann is recited here from above.

Petermann discloses wherein the feeding solution is a cleaning agent but does not explicitly disclose that it is an aqueous base or caustic. However, Rodriguez discloses wherein the cleaning agent is aqueous base or caustic (column 2, lines 11-26) at room temperature (column 1, line 62 - column 2, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Petermann in view of Rodriguez because Rodriguez teaches an improved method and solution is removing polymer residues from mechanical equipment in the production of such polymers (column 1, lines 10-15, 52-59).

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rueter as applied to claims 7, 9, and 10 above, in view of Komabashiri et al., EP 0248681 B1.

Recitation of Rueter is repeated here from above.

Rueter does not disclose wherein the organic solvent comprises 15-30 weight percent aqueous base and from 40-60 weight percent organic solvent, based on the total weight of the solution, and the remainder water. However, Komabashiri discloses wherein the organic solvent comprises 0.01-30 weight percent aqueous base and from 0.01-50 weight percent organic solvent, based on the total weight of the solution, and the remainder water (page 2, lines 32-42).

### *Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiri F. Smetana whose telephone number is (703)605-1173. The examiner can normally be reached on Monday-Friday (7:30am-4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703)608-4333. The fax phone numbers for

Application/Control Number: 09/641,155

Page 7


Art Unit: 1746

the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Jiri F. Smetana  
Patent Examiner  
Art unit 1746

jfs  
April 5, 2002



RANDY GULAKOWSKI  
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